cal stability of a given concentration of prostaglandin is increased as the concentration of Cremophor® EL is increased.

FIG. **2** demonstrates the superior stabilizing effect of the polyethoxylated castor oils, Cremophor® EL and Alkamuls® EL-620, over Polysorbate 80 in a type A Formulation (pH=5.0).

FIG. **3** demonstrates the superior stabilizing effect of the polyethoxylated castor oils, Cremophor® EL and Alkamuls® EL-620, over Polysorbate 80 in a type C formulation (pH=7.4).

The data shown in FIGS. **1–3** were generated using a Phenomenex 250 X 4.6 mm HPLC column with Spherisorb® 10 ODS(2) packing. The mobile phase was 50/50 acetonitrile/0.1% phosphoric acid at pH 3 with NaOH, 5 mM tetrabutylammonium hydroxide, and 5 mM sodium dodecylsulfate. The flow rate was 2 mL/minute, the detection was 190–192 nm UV, and the injection quantity was 25 mcL.

EXAMPLE 2

The following topically administrable ophthalmic formulation is representative of the compositions of the present invention.

INGREDIENT	A % (w/v)	B % (w/v)	C %(w/v)
Compound 32*	0.001–0.005	—	0.002
Compound 33	—	0.001–0.005	—
Brimonidine	—	—	0.2
PEG-40 hydrogenated castor oil	0.5	0.5	0.5
Tromethamine	0.12	0.12	0.785
Boric acid	0.3	0.3	0.6
Mannitol	4.6	4.6	4.25
Edetate Disodium	0.01	0.01	0.01
Benzalkonium Chloride	0.015	0.015	0.015
NaOH/HCl	q.s. to pH 6 ± 0.2	q.s. to pH 6 ± 0.2	q.s. to pH 6 ± 0.2
Purified Water	q.s. to 100%	q.s. to 100%	q.s. to 100%

preferably 1R-[1α(Z),2β(1E,3R),3α,5α]-7-[3,5-dihydroxy-2-[3-hydroxy-4-[3-(trifluoromethyl)phenoxy]-1-butenyl]cyclopentyl]-5-heptenoic acid, 1-methylethyl ester

The invention has been described by reference to certain preferred embodiments; however, it should be understood that it may be embodied in other specific forms or variations thereof without departing from its spirit or essential characteristics. The embodiments described above are therefore considered to be illustrative in all respects and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description.

What is claimed is:

1. An aqueous pharmaceutical composition comprising a therapeutically effective amount of a prostaglandin, a polyethoxylated castor oil in an amount effective to enhance the chemical stability of the prostaglandin, an antimicrobial preservative and a pharmaceutically acceptable vehicle, wherein the polyethoxylated castor oil is selected from the group consisting of PEG-5 to PEG-200 hydrogenated castor oils.

2. The composition of claim **1** wherein the polyethoxylated castor oil is selected from the group consisting of PEG-25 to PEG-55 hydrogenated castor oils.

3. The composition of claim **2** wherein the polyethoxylated castor oil is PEG-40 hydrogenated castor oil.

4. The composition of claim **1** wherein the prostaglandin is selected from the group consisting of (5Z)-(9R,11R,15R)-9-chloro-15-cyclohexyl-11,15-dihydroxy-3-oxa-16,17,18,19,20-pentanor-5-prostenoic acid; (5Z)-(9R,11R,15R)-9-chloro-15-cyclohexyl-11,15-dihydroxy-3-oxa-16,17,18,19,20-pentanor-5-prostenoic acid isopropyl ester; (5Z)-(9R,11R,15R)-9-chloro-15-cyclohexyl-11,15-dihydroxy-3-oxa-16,17,18,19,20-pentanor-5-prostenoic acid t-butyl ester; (5Z)(9S,11R,15R)-15-cyclohexyl-3-oxa-9,11,15-trihydroxy-16,17,18,19,20-pentanor-5-prostenoic acid isopropyl ester; (5Z)-(9R,11R,15S)-9-chloro-15-cyclohexyl-11,15-dihydroxy-3-oxa-16,17,18,19,20-pentanor-5-prostenoic acid isopropyl ester; (5Z)-(9R,11R,15R)-9-chloro-15-cyclohexyl-11,15-dihydroxy-3-oxa-16,17,18,19,20-pentanor-5-prostenoic acid amide; (5Z)-(9R,11R,15R)-9-chloro-15-cyclohexyl-11,15-dihydroxy-3-oxa-16,17,18,19,20-pentanor-5-prostenoic acid N,N-dimethylamide; (5Z)-(9R,11R,15R)-9-chloro-15-cyclohexyl-11,15-dihydroxy-3-oxa-16,17,18,19,20-pentanor-5-prostenoic acid 1-methylcyclohexyl ester; (5Z)-(9R,11R,15R)-9-chloro-15-cyclohexyl-11,15-dihydroxy-3-oxa-16,17,18,19,20-pentanor-5-prostenoic acid 1-methylcyclopentyl ester; (5Z)-(9R,11R,15R)-9-chloro-15-cyclohexyl-11,15-dihydroxy-3-oxa-16,17,18,19,20-pentanor-5-prostenoic acid cyclopentyl ester; (5Z)-(9R,11R,15R)-9-chloro-15-cyclohexyl-11,15-dihydroxy-3-oxa-16,17,18,19,20-pentanor-5-prostenoic acid 2,2-dimethylpropyl ester; (5Z)-(9R,11R,15R)-9-chloro-15-cyclohexyl-11,15 -dihydroxy-3-oxa-16,17,18,19,20-pentanor-5-prostenoic acid adamantyl ester; (5Z)-(9R,11R,15R)-9-chloro-15-cyclohexyl-11,15-dihydroxy-3-oxa-16,17,18,19,20-pentanor-5-prostenoic acid 2,6-diisopropylphenyl ester; (5Z)-(9R,11R,15R)-9-chloro-15-cyclohexyl-11,15-dihydroxy-3-oxa-16,17,18,19,20-pentanor-5-prostenoic acid 2,6-dimethylphenyl ester; (5Z, 13E)-(9S,11R,15R)-3-oxa-9,11,15-trihydroxy-16-(3-chlorophenoxy)-17,18,19,20-tetranor-5,13-prostadienoic acid isopropyl ester; (5Z)-(9R,11R,15R)-9-chloro-15-cyclohexyl-11-hydroxy-15-methoxy-3-oxa-16,17,18,19,20-pentanor-5-prostenoic acid t-butyl ester; (5Z)-(9R,11R,15R)-15-cyclohexyl-3-oxa-9,11,15-trihydroxy-16,17,18,19,20-pentanor-5-prostenoic acid isopropyl ester; (5E)-(9R,11R,15R)-9-chloro-15-cyclohexyl-11,15-dihydroxy-3-oxa-16,17,18,19,20-pentanor-5-prostenoic acid isopropyl ester; (5Z)-(9R,11R)-9-chloro-15-cyclohexyl-11-hydroxy-3-oxa-15-oxo-16,17,18,19,20-pentanor-5-prostenoic acid tertbutyl ester; (5Z)-(9S,11R,15R)-3-oxa-17-phenyl-9,11,15-trihydroxy-18,19,20-trinor-5-prostenoic acid isopropyl ester; (5Z)-(9R,11R,15R)-9-chloro-15-cyclohexyl-1-(dimethylamino)-3-oxa-16,17,18,19,20-pentanor-5-prostene-11,15-diol; (5Z)-(9R,11R,15R)-9-chloro-15-cyclohexyl-11,15-dihydroxy-3-oxa-16,17,18,19,20-pentanor-5-prostenol; 9R,11R,15R)-9-chloro-15-cyclohexyl-11-hydroxy-3-thia-16,17,18,19,20-pentanor-13-prostynoic acid; latanoprost; 15-keto latanoprost; cloprostenol isopropyl ester; (5Z)-(9S,11R,15R)-1-